



WIDEVINE

Supported Platforms and OEMCrypto Version Compatibility

October 8, 2020

Do Not Redistribute

OEMCrypto Versions

Version	Date	Major New Features
v1-v8	2013	<ul style="list-style-type: none"> • Earlier versions are for Widevine Classic. • Version 8 is first Modular DRM compatible API • Includes support for DRM Certificates. • At least 8 open sessions required.
v9	2/25/2014	<ul style="list-style-type: none"> • Initial support for usage tables which are required for offline licenses and secure stops.
v10	3/9/2015	<ul style="list-style-type: none"> • Improvements to feature reporting and testing. • 4 keys / session required
v10.1	3/27/2015	<ul style="list-style-type: none"> • documentation and LoadTestRSAKey.
v10.2	4/21/2015	<ul style="list-style-type: none"> • document keybox layout
v10.3	9/23/2015	<ul style="list-style-type: none"> • document HDCP 2.2 requirements.
v11	10/31/2015	<ul style="list-style-type: none"> • Pattern encryption to support CENC 3.0. • 20 keys / session required
v11.1	4/4/2016	<ul style="list-style-type: none"> • Specify buffer size requirements.
v11.2	5/16/2016	<ul style="list-style-type: none"> • Update offset values in DecryptCENC.
v12	11/28/2016	<ul style="list-style-type: none"> • Initial support for Provisioning 3.0 (i.e. using an OEM Certificate as root of trust instead of a keybox). • At least 10 open sessions required.
v13	1/19/2017	<ul style="list-style-type: none"> • Larger usage tables. • Analog output restrictions in key control block. • Support for HDCP SRM update.
v13.1	1/31/2017	<ul style="list-style-type: none"> • Recent decrypt prevents usage report.
v13.2	5/16/2017	<ul style="list-style-type: none"> • Update key control block verification field.
v14	Dec 2017	<ul style="list-style-type: none"> • Support for Entitlement Licenses. • Reporting analog restrictions. • Cipher mode set when key selected, not when key loaded.
v14.1	5/16/2018	<ul style="list-style-type: none"> • Correct PST Report structure in docs.
v15	10/15/2018	<ul style="list-style-type: none"> • Resource Ratings (includes session and key requirements) • Full decrypt path testing • VM and Sandbox support
15.1	1/30/2019	<ul style="list-style-type: none"> • modifications to Full Decrypt Path Testing
15.2	4/29/2019	<ul style="list-style-type: none"> • Updates to HDCP 2.3 and resource rating
16	9/12/2019	<ul style="list-style-type: none"> • ODK Library, Core Messages, • Combined Decrypt calls – performance improvements needed for AV1
16.1	12/9/2019	<ul style="list-style-type: none"> • ODK Library + Core Messages updates
16.2	12/31/2019	<ul style="list-style-type: none"> • ODK Library Updates (renewal message and timer updates)
16.3	6/3/2020	<ul style="list-style-type: none"> • Fixed bug for no-nonce offline licenses.
16.4	10/6/2020	<ul style="list-style-type: none"> • Fixed bug in ODK library for offline licenses.

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Android Mobile

In Android O, the Android team introduced the HIDL hardware abstraction layer. This allows device makers to update the OS version without updating the vendor partition. The HIDL interface allows backwards compatibility from the system to the vendor plugin. For Widevine, the vendor plugin is libwvhidl.so. See <https://source.android.com/devices/architecture/hidl> for more details about HIDL.

Widevine requires that when a device is first launched, it has the latest version of OEMCrypto. When a device is upgraded, we usually allow OEMCrypto to be one major version behind, as seen in the table below.

Android OS	Release Date	MediaDRM HIDL Plugin Version (and git branch)	Widevine CDM Version	OEMCrypto Version for New Device ¹	OEMCrypto Version for Device Upgrade ²
Android 12.0 S or later	TBD	TBD	TBD	16.3 16.4	15.x 16.3 16.4
Android 11.0 R or later	September 2020	android.hardware.drm@1.3 rvc-widevine-release	16.0.0	16.3 16.4	15.x 16.3 16.4
Android 10.0 Q or later	September 2019	android.hardware.drm@1.2 qt-widevine-release	15.0.0	15.x	15.x
Android 9.0 P or later	August 2018	android.hardware.drm@1.1 pi-widevine-release	14.0.0	14.x	13.x 14.x
Android 8.1 Oreo	December 2017	android.hardware.drm@1.0 oc-mr1-widevine-release	5.1.0-android	13.x	11.x
Android 8.0 Oreo	August 2017	android.hardware.drm@1.0 oc-widevine-release	5.1.0-android	11.x 12.x ³ 13.x ³	11.x

Legacy Android Mobile

Android OS	Release Date	OEMCrypto Version	New Device ¹	Device Upgrade ²
Android 7.0 Nougat	August 2016	OEMCrypto v11	OEMCrypto v11	OEMCrypto v11
Android 6.0 Marshmallow	October 2015	OEMCrypto v10	OEMCrypto v10	OEMCrypto v10
Android 5.0 Lollipop	November 2014	OEMCrypto v9	OEMCrypto v9	OEMCrypto v9
Android 4.4 KitKat	October 2013	OEMCrypto v8	OEMCrypto v8	OEMCrypto v8
Android 4.3 Jelly Bean MR2	July 2013	OEMCrypto v8	OEMCrypto v8	OEMCrypto v8

1 - refers to a new device integration for the specified Android OS version.

2 - refers to a device OS upgrade to the specified Android OS version.

3 - v12 or v13 supported but not recommended due to potential issues.

Supported

Not Supported

Android TV

As with Android Mobile above, the HIDL interface allows the Android OS to be more recent than the MediaDRM plugin. Widevine is more strict about upgrading OEMCrypto to the latest version for Android TV, as seen in the table below.

Android OS	Release Date	MediaDRM HIDL Plugin Version (and git branch)	Widevine CDM Version	OEMCrypto Version for New Device ¹	OEMCrypto Version for Device Upgrade ²
Android 12.0 S or later	TBD	TBD	TBD	16.3 16.4	16.3 16.4
Android 11.0 R or later	September 2020	android.hardware.drm@1.3 rvc-widevine-release	16.0.0	16.3 16.4	16.3 16.4
Android 10.0 Q or later	December 2019	android.hardware.drm@1.2 qt-widevine-release	15.0.0	15.x	15.x
Android 9.0 P or later	August 2018	android.hardware.drm@1.1 pi-widevine-release	14.0.0	14.x	14.x
Android 8.1 Oreo	December 2017	android.hardware.drm@1.0 oc-mr1-widevine-release	5.1.0-android	13.x	11.x
Android 8.0 Oreo	August 2017	android.hardware.drm@1.0 oc-widevine-release	5.1.0-android	11.x 12.x ³ 13.x ³	11.x

Legacy Android TV

Android OS	Release Date	OEMCrypto Version	New Device ¹	Device Upgrade ²
Android 7.0 Nougat	August 2016	OEMCrypto v11	OEMCrypto v11	OEMCrypto v11
Android 6.0 Marshmallow	October 2015	OEMCrypto v10	OEMCrypto v10	OEMCrypto v10
Android 5.0 Lollipop	November 2014	OEMCrypto v9	OEMCrypto v9	OEMCrypto v9

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2 - refers to a device OS upgrade to the specified Android OS version.

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CDM Source (ce_cdm)

Source releases are on an annual release schedule with quarterly updates or bug fixes.

CE CDM Version	Recommended OEMCrypto Version	Minimum OEMCrypto Version	Status ¹
16.4.0	v16.4	v16.3	Supported
16.3.0	v16.3	v16.3	Supported
16.2.0	v16.2	v16.2	Not Supported
15.x.x	v15	v15	Supported
14.1.2 14.2.0	v14	v14	Supported
3.5.x	v13	v10	Not Supported
3.4.x	v12	v10	Not Supported
3.3.x	v11	v10	Not Supported
3.0.0	v10	v10	Not Supported
2.x.x	v8	v8	Not Supported

1 - refers to official Widevine support (development, testing and validation).

Supported

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Cobalt (First Party platforms)

Cobalt Version	CE CDM Version	YouTube Living Room Specification (Year)	Status ¹
22	16.x	2021	Supported
21	15.x	2020	Supported
20	14.x	2020	Supported
19	14.x	2019	Supported
11	3.5.x	2018	Not Supported
9	2.5.x	2017	Not Supported

1 - refers to official Widevine support (development, testing and validation).

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